


***Uterine Fibroids
and
Abnormal Menstrual Bleeding***

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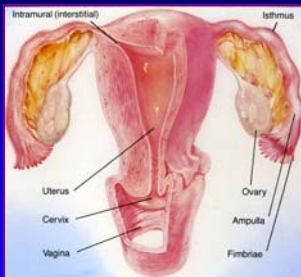
- Fibroids
- Abnormal Bleeding
- Endometrial Ablation



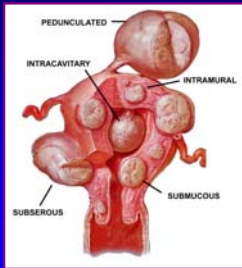
Tonight: Advanced Gynecology Solutions

- Uterine Fibroids
 - Affects over 30% of women
 - Many alternatives to hysterectomy
 - Cancer in less than 1 in 500
- Abnormal Bleeding
 - How do we find the cause of abnormal bleeding?
- What is the least invasive way to treat the problem?

Normal Uterus



Problems with Uterus: Fibroids



- Smooth muscle tumor of uterus
- Medical name: *Leiomyoma*
- Not related to "fibro-anything else"
- Many not cause symptoms
- Can cause abnormal bleeding, pressure and pain

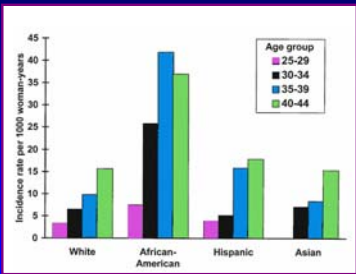
Subserous Myomas



What Causes Fibroids?

- Too much estrogen?
 - Women with fibroids have same estrogen levels as women without fibroids.
 - Progesterone can also stimulate fibroids
- Tend to be genetic — more common in African-American women
 - Fibroids often have individual mutations

Incidence of Fibroids by Race



Risk Factors for Symptomatic Fibroids

- African-American descent
- Age — rapid increase in forties
- Obesity
- Lack of exercise
- Birth control pills?
- Post-menopausal estrogen replacement?

What Causes Abnormal Bleeding

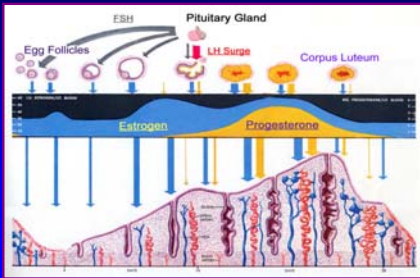
- Medical problems, such as thyroid imbalance
- Hormonal problems
 - Hormonal medication
 - Problems with ovulation
- Problems with the uterus
 - Fibroids
 - Adenomyosis
 - Polyps
 - Hyperplasia (overgrowth) and cancer



Menorrhagia (Excess Menstrual Bleeding)

- Normal menstrual blood loss is less than 3 oz.
- Excess blood loss can:
 - Cause anemia — severe anemia can require blood transfusion
 - Prevent normal activities
 - Work — have to stay close to bathroom
 - Afraid will soak through clothes
 - Plan vacations around periods
 - Be expensive
 - Sanitary products
 - Women with heavy periods work an estimated 3.6 fewer weeks per year! —Obstetrics & Gynecology, Oct 2002

Normal Menstrual Cycle



Hormonal Medication

- Premenopausal
 - Birth control pills
 - Depo-Provera
 - Progesterone to treat bleeding (Provera)
- Postmenopausal
 - Estrogen replacement therapy (ERT)
- Don't assume bleeding is hormonal until serious problems are ruled out!

Adenomyosis — Often Misdiagnosed



Cancer of Uterus



- Atypical hyperplasia
- Usually in menopausal women
- Can occur much younger
- Abnormal bleeding needs to be evaluated for cancer
- ANY bleeding in menopause needs to be evaluated for cancer

Evaluating the Uterus

- Pelvic exam
 - May be able to feel large fibroids and cysts
 - Tight muscles, full bladder, obesity may interfere
- Imaging
 - Ultrasound
 - CT scan: rarely useful
 - MRI: useful for large fibroids

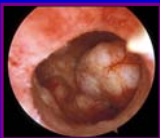
Diagnosis of Bleeding: Ultrasound

- Makes images by bouncing sound waves
- Painless, inexpensive
- Difficult to evaluate very large uterus
- May identify adenomyosis
- Sonohysterogram (Saline Infusion Sonogram or SIS): Introduction of fluid through cervix to outline endometrial cavity



Evaluate Inside of Uterus: Hysteroscopy

- Allows direct vision inside uterus
- First reported in 1869
- Can easily be done in office setting
- Only takes a few minutes
- Allows thorough evaluation of endometrial cavity
- Complements imaging techniques
- Can take sample of endometrium



Treatment of Fibroids: Why Treat?

- Risk of cancer
 - Less than 1 in 500 for fibroids
 - “Can’t feel the ovaries”
- Symptoms
 - Abnormal bleeding
 - Pelvic pressure
 - Pain
- Fertility considerations
 - Pregnancy complications
 - Infertility

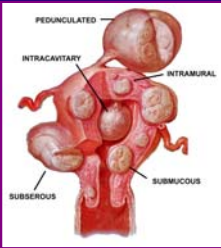
Treatment Options for Fibroids

- No treatment
- Medicine — currently only treats symptoms
- Hysterectomy – take out the uterus
- Myomectomy – take out the fibroids
- Destroy fibroids (or endometrium)
 - Myolysis (and variations)
 - Embolization
 - Endometrial ablation

Hysterectomy for Fibroids

- Removes the uterus
 - Tubes, ovaries, and cervix are optional
- Warranty: no recurrence of fibroids
- Warranty: no more periods (*amenorrhea*)
- Major surgery
- Not an option if fertility is to be preserved
- Possible disadvantages
 - Earlier menopause
 - Body image, sexual function
- Other options are usually available, but choice is an individual decision

Fibroid Treatment: Myomectomy



- Location is everything!
- How do we get to the uterus?
 - Abdomen
 - Abdominal myomectomy
 - Laparoscopic myomectomy
 - Vagina
 - Vaginal myomectomy
 - Hysteroscopic myomectomy (resectoscope)

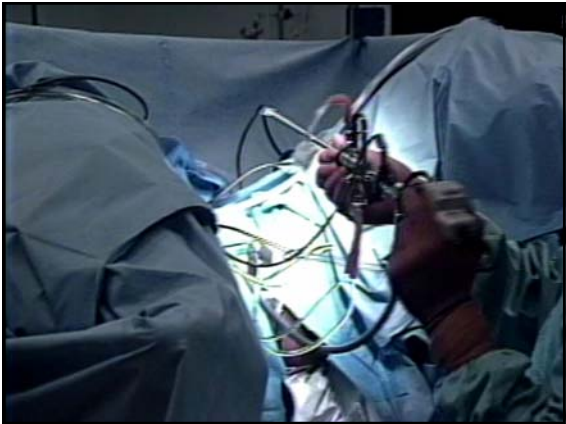
Abdominal Myomectomy

- General or regional (epidural) anesthesia
- Similar to Cesarean birth
- Incision in abdominal wall
- Remove fibroid(s)
- Repair uterus
- Recovery in 2-6 weeks



Abdominal Myomectomy: Results

- Usually stops heavy bleeding and pelvic pressure
- Risk of second major surgery: 3% - 30%
 - Increased risk
 - Large number of myomas
 - Young age
 - Reduced risk
 - Single large myoma
 - Close to menopause



Hysteroscopic Myomectomy: Considerations

- Size of myomas — rarely over 5 cm.
- Proportion in endometrial cavity
- Fertility improved if significant submucous myomas are removed
- Abnormal bleeding improved
 - Can be combined with endometrial ablation
- Considerations
 - Will intramural or subserous myomas remain?
 - Requires extensive training and skill

Laparoscopic Myomectomy



Myomectomy — Summary

- Removal of fibroids by abdominal, laparoscopic, or hysteroscopic route
- Preserves uterus and fertility
- Usually provides relief of symptoms
- Surgical risk is no higher than hysterectomy
 - Bleeding uncommon in skilled hands
 - Should be possible in 99% of women who desire to keep uterus
- Risk of recurrence of fibroids should be considered when making decision
- Currently only treatment that preserves fertility

Abnormal Bleeding — “Normal uterus”

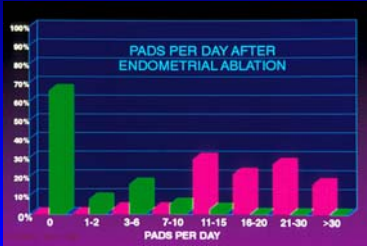
- Live with it ☹
- Medical treatment
 - Birth control pills
 - Anti-inflammatories: Meclomen, Ponstel
- Hysterectomy
 - Guarantee: never bleed again
 - Major surgery
- Endometrial ablation

Endometrial Ablation: Overview

- Alternative to hysterectomy for the treatment of heavy menstrual bleeding
- Removes or destroys the lining of the uterus (endometrium)
- Laser ablation published in 1979 by Dr. Goldrath
- First endometrial ablation in Northern California done at Good Samaritan Hospital by Dr. Indman in 1985

Ablation in Patients with Myomas

Indman PD: "Hysteroscopic Treatment of Menorrhagia Associated With Uterine Leiomyomas", *Obstetrics and Gynecology*, 81:716, 1993.

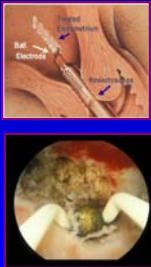


Endometrial Ablation

- Outpatient procedure — rapid recovery
- Uses energy source to remove and/or destroy the endometrium
 - NOT like a blind D&C (R.I.P.)
 - Laser energy
 - RF (radio frequency) energy
 - Heat — hot water (may be contained in balloon)
 - Freezing
- Done through a hysteroscope (resectoscope) or by using a special device (global ablation)

Resectoscope Ablation

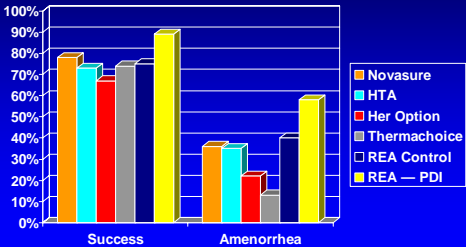
- “Gold standard”
- Resectoscope can remove polyps and fibroids at same time
- Requires expert hysteroscopy skills
- Steep learning curve
- High success rate *in skilled hands*



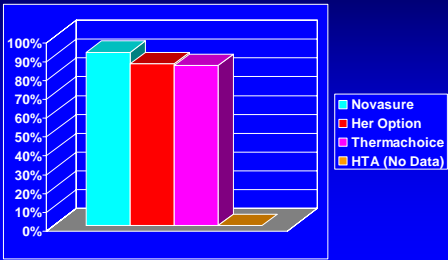
FDA Approved Devices



Summary of Devices: Intent to Treat
(Underestimates success)



Satisfaction at 12 Months:
FDA Phase III Study



Who Shouldn't Have an Ablation?

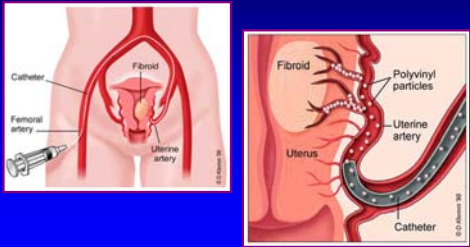
- Want to preserve fertility
- Malignancy or pre-malignancy
- Severe adenomyosis
- Other reasons for hysterectomy or other surgery
 - Large or growing fibroids
 - Prolapse (uterus falling out)
 - Severe endometriosis or pelvic pain
- ? Young age
- Would be unhappy with light bleeding



Endometrial Ablation — Advantages

- Usually eliminates heavy bleeding
 - Proper selection of women
 - Surgeon skilled in endometrial ablation
- Low risk of needing major surgery later *in properly selected patients*
- Quick outpatient procedure
- Little discomfort
- Recovery *much* more rapid than hysterectomy
- Major improvement in quality of life

Uterine Fibroid Embolization (UFE or UAE)



Embolization

- Developed in France as a treatment to make myomectomy easier
- Usually effective in treating heavy bleeding
- Average volume decrease is 50%, which is the same as decreasing diameter by 20%....but many women feel less pressure
- Contraindications: submucous and pedunculated myomas
- Possible risks and side effects
- Lack of long term data

Summary – Fibroid Treatment

- Many do not need treatment
- Medication currently treats only symptoms
- Surgical choices
 - Remove the uterus
 - Remove the fibroids (myomectomy)
 - Abdominal
 - Hysteroscopic
 - Laparoscopic
 - Kill the fibroids — embolization
